

# MOLECULAR LAYER EPITAXY METHOD AND COMPOSITIONS

## CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application is a division of U.S. application no. 09/966,745, filed October 1, 2001, <sup>now allowed</sup> which is a  
5 continuation-in-part of U.S. application no. 09/273,659, filed March 23, 1999, now U.S. patent 6,316,098, which claims benefit of U.S. provisional application 60/079,699, filed March 27, 1998.

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6/14/04

## FIELD OF THE INVENTION

10 [0002] The present invention relates to molecular monolayers compositions and methods of forming the same.

## BACKGROUND OF THE INVENTION

[0003] The interest in two-dimensional (2D) materials results from the fact that optoelectronics and molecular  
15 electronics have become frontier areas of material science (Ulman, 1991). Multilayered organic structures have recently received theoretical (Lam et al, 1991) and experimental (So et al, 1991; Forrest et al, 1994; Haskal et al, 1994; Ohmori et al, 1993; Yoshimura et al, 1991; Yoshimura et al 1992; Donovan  
20 et al, 1994; Donovan et al, 1993) treatment. Novel and applicable photophysical properties of organic superlattices have been predicted, including enhancement of optical nonlinearities (Lam et al, 1991; Zakhidov and Yoshino, 1994)